

Case 3008

***Euchilus* Sandberger, 1870 and *Stalioa* Brusina, 1870 (Mollusca, Gastropoda): proposed designation of *Bithinia deschiensiana* Deshayes, 1862 and *Paludina desmarestii* Prévost, 1821 as the respective type species, with the conservation of *Bania* Brusina, 1896**

D. Kadolsky

The Limes, 66 Heathlurst Road, Sanderstead, South Croydon, Surrey CR2 0BA, U.K. (e-mail: kadolsky@zoo.co.uk)

Abstract. The purpose of this application is to conserve the names of three fresh- and brackish-water Tertiary prosobranch gastropod genera in their accustomed usage. *Bithinia deschiensiana* Deshayes, 1862 is proposed as the type species of *Euchilus* Sandberger, 1870 and *Paludina desmarestii* Prévost, 1821 as the type species of *Stalioa* Brusina, 1870. These actions, and the suppression of *Stoliva* Fuchs, 1877 and *Stalioa* Fischer, 1885, are proposed to conserve *Bania* Brusina, 1896, to avoid the need for a new name for *Euchilus* as used in its accustomed sense, and to prevent the names *Euchilus* and *Stalioa* being applied to taxa other than those used by the majority of authors.

Keywords. Nomenclature; taxonomy; Gastropoda; HYDROBIIDAE; Tertiary prosobranch gastropods; *Euchilus*; *Stalioa*; *Bania*; *Euchilus deschiensianus*; *Stalioa desmarestii*; *Bania prototypica*.

1. The nominal genera *Euchilus* Sandberger, 1870, *Stalioa* Brusina, 1870 and *Bania* Brusina, 1896 were reviewed by Kabat & Hershler (1993) and by Kadolsky (1993). The position of each name is here considered in turn, and Commission action is proposed to conserve those names in their accustomed usage.

***Euchilus* Sandberger, 1870**

2. The nominal genus *Euchilus* was established by Sandberger in a large work entitled *The Land and Freshwater Molluscs of the Past World*. This appeared in 12 livraisons between 1870 and 1875, the plates with species names engraved usually preceding the text. In livraison 2/3 (published in 1870) the name '*Euchilus Desmarestii* Prév. sp.' was published as legend to plate 11, figure 10, thereby making *Paludina desmarestii* Prévost, 1821 (p. 426) type species of *Euchilus* by monotypy. In livraison 4/5 (1871) Sandberger introduced the binomen '*Euchilus Deschiensianum* Deshayes, sp.' in the legend to plate 13, figure 8. The first time the name *Euchilus* appeared in the text (as opposed to the plates) was in livraison 6/8 (1872) where (p. 225) *Bithinia deschiensiana* Deshayes, 1862 (p. 492) was given as 'type'.

3. Subsequent authors have variously considered *Paludina desmarestii* Prévost, 1821 or *Bithinia deschiensiana* Deshayes, 1862 as the type species of *Euchilus*. The majority of authors (e.g. Clessin, 1880; Cossmann, 1888; Schlickum, 1968 (but not 1961, 1965); Kabat & Hershler, 1993; Kadolsky, 1993) accept *Bithinia deschiensiana*

as the type species, even though the fixation of *Paludina desmarestii* has priority; it is all the more desirable to maintain this use as there is no alternative name available for a genus-group taxon including *Bithinia deschiensiana* (see Kadolsky, 1993). It is therefore proposed that *B. deschiensiana* should be taken as the type species of *Euchilus*.

Stalioa Brusina, 1870

4. Brusina (1870, p. 937) established the nominal genus *Stalioa* with a brief description, here translated from the German, of an unnamed new fossil species from Dalmatia: '... [Together] with *Emmericia canaliculata* [a new species described in the same paper] I also found a single, globular, completely smooth species, with a strongly folded aperture margin, often with 1–2 folds on the spira, which belongs neither to *Emmericia* nor to *Fossarulus* and has only with *Annicola* some similarity; for this [species] I propose a new genus'. This unnamed new species is the only one definitely included in *Stalioa*, which was therefore established without originally included nominal species. Brusina mentioned several species as most likely belonging to *Stalioa* but refrained from including them definitely because he had not himself seen specimens; amongst such species were *Bithinia deschiensiana* Deshayes and *Paludina desmarestii* Prévost, but under Article 67g of the Code they are not 'originally included species'.

5. The first subsequent inclusion of a nominal species was made by Brusina (1872, p. 144) when he gave a name to the unnamed species of his 1870 paper. He wrote (translation from Serbo-Croatian): '*Stalioa prototypica* Brus., about 20 individuals, is not only a new species, but I also took the liberty to make a new genus from this species (l.c. p. 937) ...'. This was the first unqualified inclusion of a nominal species in *Stalioa*; the specific name is made available by reference to the description of 1870. Another specific name mentioned in this paper, that of *Stalioa valvatoides*, was a nomen nudum. Under Article 69a(vii) of the Code *Stalioa prototypica* Brusina, 1872 is type species of *Stalioa* by subsequent monotypy.

6. Brusina (1874) described more fully and figured *Stalioa prototypica* (pp. 43–44, pl. 4, figs. 11–12); he also for the first time described and figured *S. valvatoides* (p. 44, figs. 9–10), thereby making it available. Brusina again only provisionally attributed *desmarestii* Prévost, *deschiensiana* Deshayes and other species to *Stalioa*, as he still had no material for study. Clessin (1880, p. 183) designated *Stalioa valvatoides* as type species of *Stalioa*. This designation is invalid since *S. valvatoides* was not an available name when first (1872) included in *Stalioa* and, furthermore, through Brusina (1872) the type species was already established by monotypy as *Stalioa prototypica*.

7. Cossmann (1893, p. 15) gave *Paludina desmarestii* Prévost as type species of *Stalioa*, apparently after correspondence with Brusina. This type designation has been generally accepted (e.g. Dollfus, 1912; Roman, 1912; Cossmann & Peyrot, 1919; Cossmann, 1921; Wenz, 1926, 1939; Glibert, 1949, 1962; Kabat & Hershler, 1993; Kadolsky, 1993). It is proposed that *Paludina desmarestii* should be taken as the type species of *Stalioa*, because of this usage and because of the situation described in para. 8 below. Schlickum (1968, p. 53) proposed the subgeneric name *Sandbergeriella* with *P. desmarestii* as type species. This action was based on the erroneous assumption that a replacement name for *Stalioa* Auctorum was needed, because

Schlickum (1960, 1961) thought *Emmericia canaliculata* Brusina to be the type species of *Stalioa* by monotypy. This is clearly an error, although it is easy to see how Brusina's wording, quoted in para. 4 above in literal translation, gave rise to such a misunderstanding. *Stalioia* Fischer, 1885 (p. 731) was an unnecessary replacement name for *Stalioa*, introduced for linguistic reasons, and hence a junior objective synonym available with its own author and date. *Stalioia* predates *Bania* Brusina, 1896 (see below), but the designation of *Paludina desmarestii* as the type species of *Stalioa*, and hence of *Stalioia*, means that *Bania* is not invalidated.

***Bania* Brusina, 1896**

8. Brusina (1896, p. 130), in a complete reversal of his earlier actions, introduced a new generic name *Bania* with *Stalioa prototypica* as type species by monotypy. However, *S. prototypica* is formally the type species of *Stalioa* (see para. 5 above), making *Bania* a junior objective synonym of *Stalioa*. *Bania* is in current, albeit infrequent, use (e.g. Wenz, 1926, 1939; Kabat & Hershler, 1993; Kadolsky, 1993), and will be conserved by the designation proposed in para. 7 above of *Paludina desmarestii* as type species of *Stalioa* instead of *S. prototypica*. *Bania* is threatened by the nominal genus *Stoliva* Fuchs, 1877 (p. 682 and table opposite p. 700), which was introduced in the combinations *Stoliva prototypica* Brusina and *Stoliva valvatoides* Brusina. *Stoliva* could be interpreted as an incorrect subsequent spelling of *Stalioa*, but could alternatively be treated as a new nominal genus in which case it would be a senior subjective synonym of *Bania*; its suppression is proposed.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers:
 - (a) to set aside all fixations of type species for the following nominal genera:
 - (i) *Euchilus* Sandberger, 1870 prior to that by Sandberger (1872) of *Bithinia deschiensiana* Deshayes, 1862;
 - (ii) *Stalioa* Brusina, 1870 prior to that by Cossmann (1893) of *Paludina desmarestii* Prévost, 1821;
 - (b) to suppress the generic name *Stoliva* Fuchs, 1877 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place the following names on the Official List of Generic Names in Zoology:
 - (a) *Euchilus* Sandberger, 1870 (gender: masculine), type species by subsequent designation by Sandberger (1872) *Bithinia deschiensiana* Deshayes, 1862 by the ruling in (1)(a)(i) above;
 - (b) *Stalioa* Brusina, 1870 (gender: feminine), type species by subsequent designation by Cossmann (1893) *Paludina desmarestii* Prévost, 1821 by the ruling in (1)(a)(ii) above;
 - (c) *Bania* Brusina, 1896 (gender: feminine), type species by monotypy *Stalioa prototypica* Brusina, 1872;
- (3) to place the following names on the Official List of Specific Names in Zoology:
 - (a) *deschiensiana* Deshayes, 1862, as published in the binomen *Bithinia deschiensiana* (specific name of the type species of *Euchilus* Sandberger, 1870);

- (b) *desmarestii* Prévost, 1821, as published in the binomen *Paludina desmarestii* (specific name of the type species of *Stalioa* Brusina, 1870);
- (c) *prototypica* Brusina, 1872, as published in the binomen *Stalioa prototypica* (specific name of the type species of *Bania* Brusina, 1896);
- (4) to place the following names on the Official Index of Rejected and Invalid Names in Zoology:
- (a) *Stoliva* Fuchs, 1877, as suppressed in (1)(b) above;
- (b) *Sandbergeriella* Schlickum, 1968 (a junior objective synonym of *Stalioa* Brusina, 1870);
- (c) *Stalioia* Fischer, 1885 (an unnecessary replacement name and junior objective synonym of *Stalioa* Brusina, 1870).

Acknowledgements

I thank Dr Vjera Whitehead (Wimbledon, U.K.) for translations from the Serbo-Croatian, and Dr Jacques Le Renard (Plaisir, France) for his search for syntypes of *Paludina desmarestii* Prévost.

References

- Brusina, S. 1870. Monographie der Gattungen *Emmericia* und *Fossarulus*. *Verhandlungen der Kaiserlich-Königlichen Zoologisch-Botanischen Gesellschaft in Wien*, **20**: 925–938.
- Brusina, S. 1872. Naravoslovne crtice sa sjevero-istočne obale jadranskoga mora sabrao god. 1868 i 1871. *Rad Jugoslavenske Akademije Znanosti i Umjetnosti*, **19**: 105–177.
- Brusina, S. 1874. Prilozi paleontologiji hrvatskoj ili kopnene i sladkovodne terciarne izkoptine Dalmacije, Hrvatske i Slavonije. *Rad Jugoslavenske Akademije Znanosti i Umjetnosti*, **28**: 1–109.
- Brusina, S. 1896. La collection Néogène de Hongrie, de Croatie, de Slavonie et de Dalmatie à l'exposition de Budapest. *Glasnik Hrvatskoga Naravoslovnoga Društva*, **9**: 98–150. [In Serbo-Croatian and French].
- Clessin, S. 1880. Studien über die Familie der Paludinen. *Malakozoologische Blätter*, (n.s.): **2**: 161–196.
- Cossmann, M. 1888. Catalogue illustré des coquilles fossiles de l'Éocène des environs de Paris, faisant suite aux travaux paléontologiques de G.P. Deshayes, part 3. *Annales de la Société Royale Malacologique de Belgique*, **23**: 3–324.
- Cossmann, M. 1893. Catalogue illustré des coquilles fossiles de l'Éocène des environs de Paris, faisant suite aux travaux paléontologiques de G.P. Deshayes. Appendice no. 1. *Annales de la Société Royale Malacologique de Belgique*, **28**: 1–18.
- Cossmann, M. 1921. *Essais de paléoconchologie comparée*, vol. 12. 348 pp., 6 pls. Privately published, Paris.
- Cossmann, M. & Peyrot, A. 1919. Conchologie Néogénique de l'Aquitaine. *Actes de la Société Linnéenne de Bordeaux*, **70**(4): 357–491.
- Deshayes, G.P. 1862. Pp. 433–640 in: *Description des animaux sans vertèbres du Bassin de Paris*. 2. Baillière, Paris.
- Dollfus, G. 1912. Recherches critiques sur quelques genres et espèces d'*Hydrobia* vivants ou fossiles. *Journal de Conchyliologie*, **59**(3): 179–270.
- Fischer, P.H. 1885. Pp. 689–896 in: *Manuel de conchyliologie et de paléontologie conchyliologique ou histoire naturelle des mollusques vivants et fossiles*. Savy, Paris.
- Fuchs, T. 1877. Geologische Uebersicht der jüngeren Tertiärbildungen des Wiener Beckens und des ungarisch-steierischen Tieflandes. *Zeitschrift der Deutschen Geologischen Gesellschaft*, **29**(4): 653–709.
- Glibert, M. 1949. Gastropodes du Miocène du Bassin de la Loire. *Mémoires de l'Institut Royal des Sciences Naturelles de Belgique*, (2)**30**: 1–240.

- Glibert, M. 1962. Les Mesogastropoda fossiles du Cénozoïque étranger des collections de l'Institut royal des Sciences Naturelles de Belgique. 1e partie. Cyclophoridae à Stiliferidae (inclus). *Mémoires de l'Institut Royal des Sciences Naturelles de Belgique*, (2)69: 1–305.
- Kabat, A. R. & Hershler, R. 1993. The prosobranch snail family Hydrobiidae (Gastropoda Rissosoidea): review of classification and supraspecific taxa. *Smithsonian Contributions to Zoology*, no. 547. 94 pp. Smithsonian Institution Press, Washington, D.C.
- Kadolsky, D. 1993. Der Gattung *Nystia* zugeordnete Arten im Tertiär des mittleren und westlichen Europas (Gastropoda: Rissosoidea). *Archiv für Molluskenkunde*, 122: 335–402.
- Prévost, C. 1821. Sur un nouvel exemple de la réunion de coquilles marines et de coquilles fluviatiles dans les mêmes couches. *Journal de Physique, de Chimie, d'Histoire naturelle et des Arts*, 92: 418–427.
- Roman, F. 1912. Faune saumâtre du Sannoisien du Gard. *Bulletin de la Société Géologique de France*, (4)10: 927–955.
- Sandberger, C.L.F. von. 1870–1872. *Die Land-und Süßwasser-Conchylien der Vorwelt*. Livraison 2/3: pp. 33–96, pls. 5–12 (1870); Livraison 4/5: pp. 97–160, pls. 13–20 (1871); Livraison 6/8: pp. 161–256, pls. 21–32 (1872). Kreidel, Wiesbaden.
- Schlickum, R.W. 1960. Die Gattung *Nematurella* Sandberger. *Archiv für Molluskenkunde*, 89(4–6): 203–214.
- Schlickum, R.W. 1961. Die Gattung *Euchilus* Sandberger. *Archiv für Molluskenkunde*, 90(1–3): 59–68.
- Schlickum, R.W. 1965. Zur Gattung *Euchilus* Sandberger. *Archiv für Molluskenkunde*, 94(3–5): 99–104.
- Schlickum, R.W. 1968. Zur Nomenklatur von *Staliopsis* Rzehak 1893. *Archiv für Molluskenkunde*, 98(1–2): 53–54.
- Wenz, W. 1926. Gastropoda extramarina tertiaria. *Fossilium Catalogus*, I (Animalia), part 32. Pp. 1863–2230. Junk, Berlin.
- Wenz, W. 1939. Pp. 481–720 in: *Handbuch der Paläozoologie*, vol. 6. Gastropoda. 1. Allgemeiner Teil und Streptoneura. Borntraeger, Berlin.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).